

BEST AVAILABLE COPY**E. Remarks**

The claims are 1-23, with claims 1-3 being independent. Claims 1-3, 7 and 14-17 have been amended for clarification and to improve their form. The specification has been amended to correct the obvious typographical, grammatical and syntax errors to conform the text better with proper idiomatic English. The title has been amended to address the objection made by the Examiner. No new matter has been added. Reconsideration of the present claims is expressly requested.

Initially, as a formal matter, Applicants request that the Examiner return a signed PTO-1449 form filed with an Information Disclosure Statement on April 25, 2005, confirming that the cited information has been considered. Copies of the IDS, Form PTO-1449 and the cited art are available in the IFW of the present case.

The title is objected to for being allegedly not descriptive. In response, Applicants have amended the title to better reflect the claimed subject matter. Accordingly, withdrawal of this objection is respectfully requested.

Claims 2, 3, 5, 6, 12 and 13 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,630,772 B1 (Bower). Claims 1, 4, 7-9, 11 and 18-23 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from Bower in view of U.S. Patent No. 6,756,025 B2 (Colbert). Claims 14-17 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from Bower in view of Colbert and further in view of U.S. Patent No. 6,090,363 (Green). The grounds of rejection are respectfully traversed.

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Prior to addressing the merits of rejection, Applicants would like to briefly discuss some of the key features of the presently claimed invention. That invention, in pertinent part, is related to methods for manufacturing various structures containing carbon fibers. In particular, in this method, a substrate with a catalyst arranged on its surface is heated in a depressurized atmosphere that includes a carbon containing gas to grow carbon fibers by using the catalyst. In this method, a partial pressure of the carbon containing gas may be 1/1000 or less of a total pressure of the reduced pressure atmosphere, and may be 10 Pa or less. A total pressure of the reduced pressure atmosphere may be 2000 Pa or less or 600 Pa or less.

Bower is directed to a device, which contains a carbon nanotube field emitter structure. However, contrary to the allegation by the Examiner, Bower does not disclose or suggest a partial pressure of the carbon containing gas of 10 Pa or less or a total pressure of a reduced atmosphere of 600 Pa or less.

Bower teaches, at column 6, lines 43-45,¹ that "[c]arbon concentration in the gas phase is typically 5 to 30 at.%, and the chamber pressure is typically 10 to 200 torr". Thus, since 1 torr $\approx 1.33 \times 10^2$ Pa, Bower teaches that a pressure in the chamber is 1.33 to 26.6 kPa and the carbon content in the gas in the chamber is 5 to 30 atomic percent. Clearly, this is not a teaching of a partial pressure of 10 Pa or less or a total pressure of 600 Pa or less. Thus, Bower cannot affect the patentability of the presently claimed invention.

Colbert cannot supplement the missing teachings of Bower. Colbert is directed to a method for growing single-wall carbon nanotubes. The Examiner alleged that

^{1/} The Examiner relied on this portion in Bower for the recitation of the pressure.

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Colbert teaches that a partial pressure of the carbon containing gas is $1/1000$ or less of a total pressure of the reduced pressure atmosphere, and is 10 Pa or less. Applicants respectfully disagree.

Specifically, at column 27, lines 21-22,² Colbert teaches that the total pressure should be 1 to 2 times the partial pressure of the carbon feedstock. Thus, according to Colbert, the partial pressure of the carbon material is from $\frac{1}{2}$ to 1 of the total pressure. This is clearly different from the recitation in claim 1, wherein the partial pressure of the carbon containing gas is $1/1000$ or less of the total pressure of the reduced pressure atmosphere.

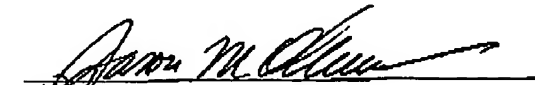
Green cannot cure the deficiencies of either Bower or Colbert. Green was cited for the teaching of specific catalytic particles. Even if Green contains such a teaching, it still fails to include the same presently claimed features, which are missing in Bower and Colbert.

Accordingly, whether considered separately or in any combination, Bower Colbert and Green do not disclose or suggest all of the presently claimed elements. Wherefore, Applicants respectfully request that the rejections be withdrawn and the application be expediently passed to issue.

^{2/} The Examiner is understood to have relied on this portion in Colbert for the recitation of the relationship of partial and total pressures.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


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